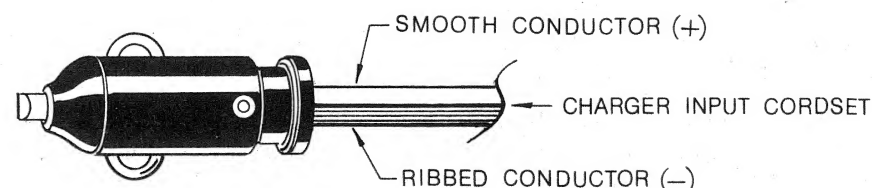
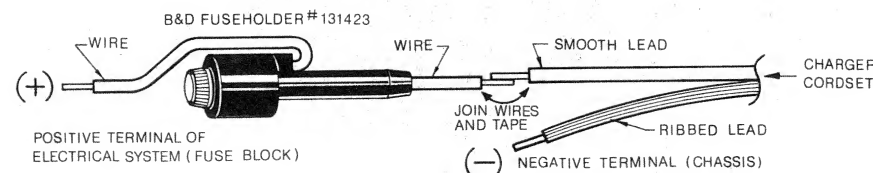


## SPECIAL INSTALLATION INSTRUCTIONS

1. Some vehicles have no cigarette lighter receptacle or require remote installation. The proper vehicle electrical system connections should follow this procedure.
2. **DO NOT** connect the charger to any electrical system without providing proper fusing. A 10 Amp fuse must be connected in the positive (+) supply lead to the charger. Under no circumstances shall the charger be fused greater than 10 Amps. The fuse should be located close to the point of connection to the vehicle electrical system. Black & Decker Number 131423 includes a fuse holder and lead wire assembly for this purpose and may be purchased at Black & Decker Service Centers.
3. Any external wiring to the charger cordset should be 18 gauge or larger.
4. The two conductors of the charger cordset may be separated. The ribbed conductor is the negative (—) input, and the smooth conductor is the positive (+) input.



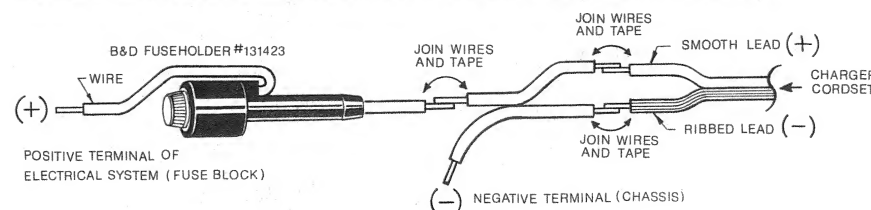
5. The ribbed conductor is connected via an appropriate connector or wiring terminal to a negative (—) terminal of the electrical system. In negative ground systems, the vehicle chassis is a convenient connection point, provided any surface corrosion or paint is first removed from the connection area.



6. The smooth conductor is connected to one lead of a fuse-holder containing a 10 Amp fuse; the electrical connection should be secured by twisting the conductors of the two leads, soldering or wire-nutting, and placing electrical grade tape over the joint to prevent short circuits. The remaining fuse-holder lead is connected via an appropriate connector or wiring terminal to a positive (+) terminal of the vehicle fuse block.

(Continued on next page)

## SPECIAL INSTALLATION INSTRUCTIONS (Continued)



7. If an extension to the existing cordset is made, care must be taken to insure like polarities of the extension cable and the charger cordset are connected together. All wiring joints should be secure and adequately insulated with electrical grade tape to prevent exposed wire from producing short circuits. Use 18 gauge or larger conductors for cordset extension wiring.
8. **WARNING:** Wiring to the charger cordset and electrical system connections should be routed to avoid sharp edges, doors, crushing loads, and corrosives which may damage the wiring and create a hazard.
9. **WARNING:** Connections to the vehicle electrical system should be made **only** at the vehicle fuse block. Failure to properly fuse and splice wire terminations can result in severe damage to the vehicle electrical system and create a fire hazard.

## STORAGE RECOMMENDATIONS

1. The best storage place is one that is cool and dry—away from direct sunlight and excess heat or cold.
2. Long storage will not harm the Energy Pak or charger. Under proper conditions, they can be stored for 5 years or more.
3. The charger may remain connected to the vehicle (through either the cigarette lighter socket or hard wired per special installation instructions) indefinitely. There is no drain on the vehicle battery, except when charging an Energy Pak.

## COMMERCIAL/INDUSTRIAL USE WARRANTY

Black & Decker warrants this product for one year from the date of purchase. We will repair without charge, any defects due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to any Black & Decker Service Center or Authorized Service Station listed under "Tools-Electric" in the yellow pages.

## SERVICE

In the event service is required, take or send the unit, complete with charger, to your nearest B&D Service Center. The address may be found under "Tools-Electric" in the yellow pages of your telephone directory.

## IMPORTANT

To assure product **SAFETY** and **RELIABILITY**: Repairs, maintenance, and adjustments should be performed by **BLACK & DECKER** Service Centers or other qualified service organizations, always using **BLACK & DECKER** replacement parts.

**BLACK & DECKER (U.S.) INC., TOWSON, MARYLAND 21204, U.S.A.**

Form No. 724308

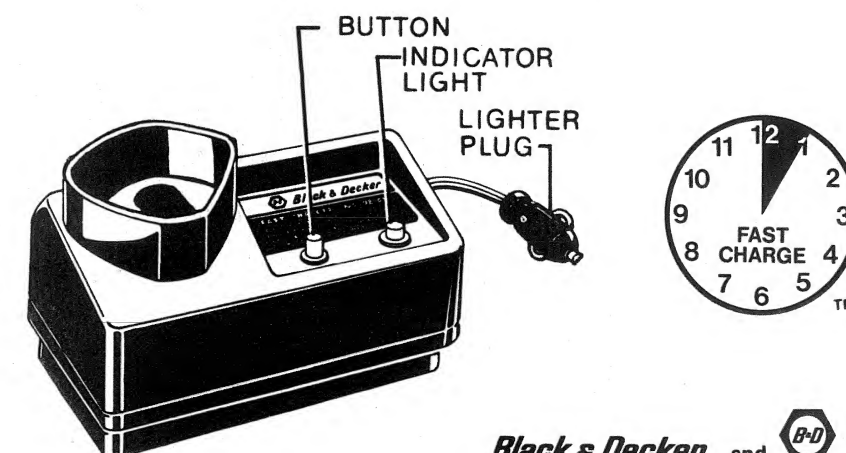
(July 79-PS)

Printed in U.S.A.



## INSTRUCTIONS FOR NO. 98002 12 VOLT FAST CHARGER

For Use with No. 98003 or 91-009 Energy Pak



**Black & Decker**, and are registered trademarks of The Black and Decker Manufacturing Company, Towson, Maryland, U.S.A.

You can use your B&D 98002 12 Volt Fast Charger in any vehicle having a cigarette lighter socket operating from a 12 volt **negative ground** battery. Some vehicles have a 12 volt **positive ground** battery. For these vehicles, the charger must be converted for use with a positive ground system. This modification may be performed following the simple instructions in this manual, or by returning the unit to any B&D Service Center. See "Tools, Electric" in the Yellow Pages for your nearest B&D Service Center.

Charging time for a completely discharged 98003/91-009 Energy Pak is approximately 1 hour. Read this owner's manual carefully and observe all safety instructions. Special attention should be given to the notes describing the effects of temperature on the charge capabilities of the 98003/91-009 Energy Pak.

**NOTE:** No danger results from reversed polarity input to the charger. However, the charger will not operate under this condition.

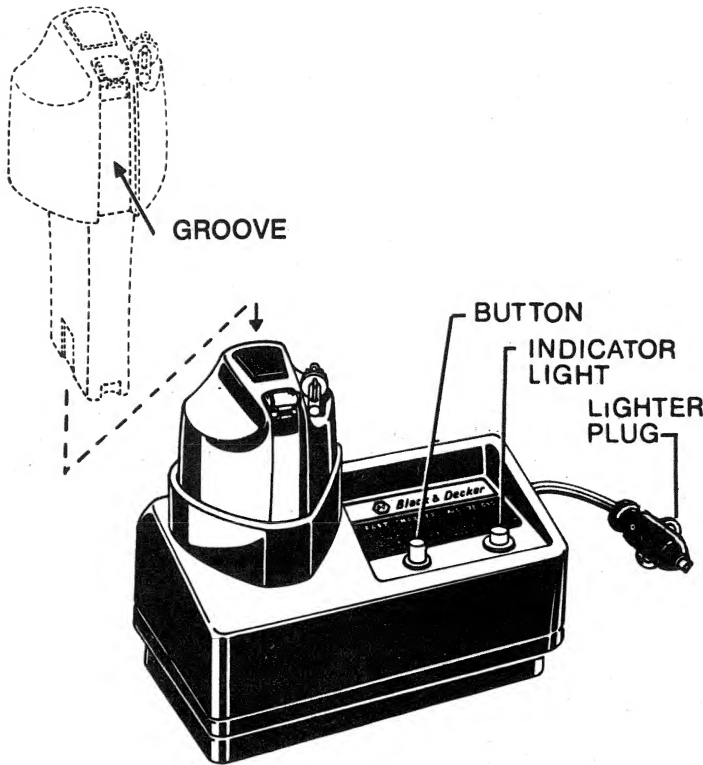
## SAFETY INSTRUCTIONS

1. The 98002 Fast Charger is specifically designed to charge B&D 98003/91-009 Energy Paks. **DO NOT** attempt to charge any other battery with this charger.
2. **DO NOT** immerse the charger in water. Avoid exposure to rain, snow, or other wet conditions.
3. The charger cordset has an integral overload protector (fuse). If a cordset failure occurs, a replacement cordset, B&D part No. 131695, must be used; this part is available from B&D Service Centers. **DO NOT** operate the charger without proper overload protection (fuse). Refer to the Special Installation Instructions for wiring information in vehicles without a cigarette lighter socket.
4. The charger is designed to operate from a 12 volt negative ground battery system. **DO NOT** attempt to use it with any other voltage system.
5. Don't abuse the cord. Never carry the charger by the cord, or yank the cord to disconnect the plug. Keep the cord from extreme heat, oil, and sharp edges.

## IMPORTANT CHARGING NOTES

1. The longest life and best performance of the 98003/91-009 Energy Pak is obtained if used and charged in the temperature range 65°F to 85°F.
2. Avoid storing the Energy Pak in hot locations. The 98003/91-009 Energy Pak has a thermostat that prevents charging when the Pak temperature is above 110°F. Energy Paks that are hot may be charged normally after being cooled below 110°F.  
**Note:** On hot summer days, the temperature inside a closed vehicle, tool box, metal storage shed, etc., may reach 150°F.
3. Avoid storing the charger in cold locations. The 98002 Charger has a thermostat that prevents charging Energy Paks below 40°F. Chargers in cold locations must be warmed above 40°F to provide normal operation.
4. A red indicator light and a slight audible whine from the charger indicate normal charging operation.
5. During operation, the charger may become warm to the touch. This is normal and does not indicate a problem.
6. When a new Energy Pak is first used, it may only accept a partial charge. After several charge/discharge cycles, the Energy Pak will be up to full capacity.
7. A sudden drop in the power output of your cordless tool indicates that the Energy Pak needs recharging.
8. Exclusive fast charging of the Energy Pak may produce shortened operating time of your cordless tool. Original operating time may be restored by completely discharging the Energy Pak and recharging it overnight with either of the 120 volt chargers (98015/91-007 or 98010/91-005). Several reconditioning cycles may be needed to fully restore maximum operating time.
9. When operating, the charger drains a maximum of 2.5 Amperes from the battery in your vehicle. Approximately 10 Energy Paks can be recharged before impairing the vehicle's ability to start. When an energy pack is not being charged (red indicator OFF), even if a Pak is inserted, there is no drain on your vehicle battery.
10. Do not leave battery packs in the Fast Charger overnight.

## CHARGING PROCEDURE



1. Place the Power Pack in the Charger as shown above. Note that groove in Power Pack faces front. Plug in Charger.
2. Press button momentarily; the light turns "ON", indicating your Power Pack is now on charge.
3. In about an hour, the light will turn "OFF". Charging is now complete and your Power Pack is ready for use.

**NOTE:** If the Power Pack has become warm in use, and is placed in the charger still warm, the light will not go on and charging will not begin when the button is pressed. When the pack cools, it can be charged normally.

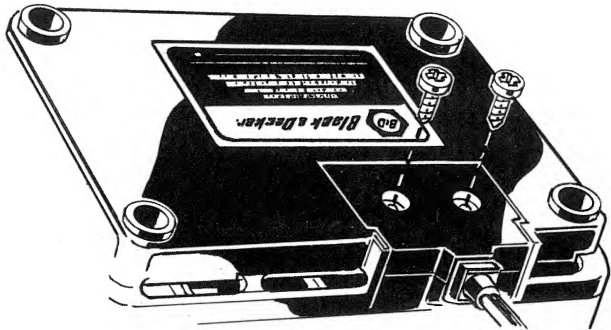
## TROUBLESHOOTING GUIDE

If the charger does not operate, check to insure that:

1. The charger plug is fully inserted into the cigarette lighter socket.
2. The cigarette lighter socket is not connected to the ignition switch, so that power is disconnected in the "OFF" position.
3. The cigarette lighter socket is clean.
4. The cigarette lighter operates in the socket.
5. The Energy Pak is fully inserted into the charger.
6. The interior temperature of the vehicle is within the operating temperature range outlined under "Important Charging Notes" (40°F to 110°F).
7. If the charger is still inoperative, return it to an authorized B&D Service Center. **DO NOT** attempt to service the charger yourself; there are no user-serviceable parts.

## MODIFICATION FOR POSITIVE GROUND OPERATION OF CHARGER

1. Disconnect plug from cigarette lighter socket.
2. See figure below. Remove two Phillips head screws securing the plastic cover.



3. Note the relative position of the smooth and ribbed wires of the cordset. Disconnect the cordset by pulling straight out on the two metal connectors.
4. Reverse the position of the wires and reconnect them by pushing the connectors onto the charger terminals as far as they will go.
5. Position the molded cordset strain relief in the slot in the charger housing.
6. Replace the plastic cover and screws.
7. This completes the modification for 12 volt positive ground operation.